



ESH Program

NuMI Installation Phase

NuMI Project ESH Coordinator

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April 8 - 9, 2003



MINOS

Outline

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- ISM Plan for Installation Phase
 - « Roles & Responsibilities
 - « Seven Basis Program Elements
 - « ESH Oversight
 - Radiation Safety
 - « Shielding Assessment
 - « Safety Assessment Document
 - ESH/QA Review Program
 - « Types of Reviews
 - « Review Process
 - « Tracking
 - Previous Recommendations
 - Summary
 - Installation Coordination Plan
 - FESHM
 - Personnel Accountability & Site Access Controls
 - Training
 - Hazard Communication Program
 - Toolbox Meetings
 - Work Planning Meetings
 - Hazard Analysis
 - Hazard Mitigation
 - ESH Inspections & Audits
 - Lessons Learned



ISM Plan

- Define Line Management Responsible for Safety
 - « Fermilab Policy
 - « NuMI Project Plan
- Define Clear Roles & Responsibilities
 - « NuMI Project Installation Coordination Plan
- Define Competence, Commensurate with Responsibilities
 - « Fermilab Underground Safety Awareness Class
 - « Fermilab Task Manager/Construction Coordinator Class
 - « ITNA Identified Training Classes
- Define Balanced Priorities
 - « Provide Project Management with accurate information about the work activity, schedule, costs, hazards, risks, and controls during daily and weekly progress/planning meetings



ISM Plan

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- Identification of Standards & Requirements
 - « The Work Smart (formerly Necessary and Sufficient) Standards Set itemizes all the ES & H laws, regulations, and standards to which Fermilab, including the NuMI Project must adhere.
 - « FESHM
 - Hazard Controls Tailored to Work
 - « Hazard Analysis
 - « Personal Protective Equipment
 - « Toolbox Meetings
 - Operations Authorization
 - « Work Notification
 - « Daily Work Planning and Hazard Review
 - « Progress Meetings
 - « ESH Inspections
 - « ESH/QA Reviews



Shielding Assessment & Safety Assessment Document (SAD) Status/Plans

- NuMI Safety Documents Website is set up (password protected)
 - « Gathering documentation electronically
 - * General Reference Material
 - * Shielding Assessment Document References
 - * Safety Assessment Document References
 - « BD Safety and ES&H Section can review in sections, if they wish.
- Best to get Shielding Assessment Approval before start SAD approval
 - « Radiation Safety is a large part of the SAD
 - « Air & Groundwater Methodology Documents are nearly ready for approval
 - * Have been reviewed by the ES&H Section, comments incorporated
 - « Mike Gerardi has given us an outline of what needs to be in the shielding assessment – no surprises
 - « A rough first draft Shielding Assessment Document has been prepared
 - « Shielding Assessment Document – complete by 1/04 – ready for review/approval (first by BD)



Shielding Assessment & Safety Assessment Document (SAD) Status/Plans

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- Safety Assessment Document – complete by 4/04 – ready for review/approval
 - « Have met with all stakeholders (NuMI w/ DOE, ESH, BD & PPD) to determine overall approach for SAD
 - * One SAD for NuMI (not several)
 - * Perhaps break up into geographical sections, like CDF SAD
 - * Discussed lessons learned from MiniBooNE SAD experience
 - * Named contact people in each stakeholder group for SAD feedback
 - * Discussed importance of frequent & timely feedback (both ways) throughout process
 - « A rough first draft NuMI SAD has been prepared
 - * Need to assign writing assignments for some portions next
 - * Need to existing documentation electronically & post
 - * Determine what documentation is missing & assign work
- Have discussed timelines for SAD and Shielding Assessment with BD and ES&H and they are in agreement with our timelines.



ESH/QA Reviews

- Identify Components in need of review
 - « Component review Spreadsheet broken down by WBS
- Review Process for Components
 - « Initiated by the responsible Level 3 Manager (L2 or L3)
 - « Coordinated by NuMI Project ESH Coordinator
 - « Independent Reviewers
 - * Safety, Structural, Electrical, Mechanical Engineers
- Types of Reviews
 - « Conceptual
 - « Design
 - « Readiness (Completed by NuMI & MINOS Safety Review Committees)

ESH/QA Reviews

- Recent Component Design Reviews which have been completed include:
 - « 10 Ton Spl. Bridge Crane and Related Lifting Components
 - « MI NuMI Stub-Magnet Handling Cranes
 - « MI NuMI Stub-Magnet Stands
 - « MI-62 Heat Exchanger Stands
 - « NuMI Extraction Aisle Side Supports



Response to recommendations

- Lehman Review Recommendation
 - « Visit Lawrence Livermore - National Ignition Facility (NIF) to review NIF Safety Leadership Program which was utilized during their installation phase.
 - * The NuMI Project ESH Coordinator is planning to visit LLNL Spring/Summer 2003.
- December 2002 Director's Review
 - « Reviewed the charge of the NuMI Safety Review Committee.
 - * The review committee's primary responsibility will be validation during the readiness review phase of the NuMI Project ESH/QA Review Process



Summary

- The implementation of NuMI Project ESH Program will continue on from the SBO Phase of work into the Installation Phase of Work.
- Continue Development of the Key Elements of the Installation Phase- ISM Plan.
- Continue development of the NuMI Shielding Assessment for review/approval by 01/04
- Continue development of the NuMI SAD for review/approval by 04/04
- Finalize the written ESH/QA Review Program